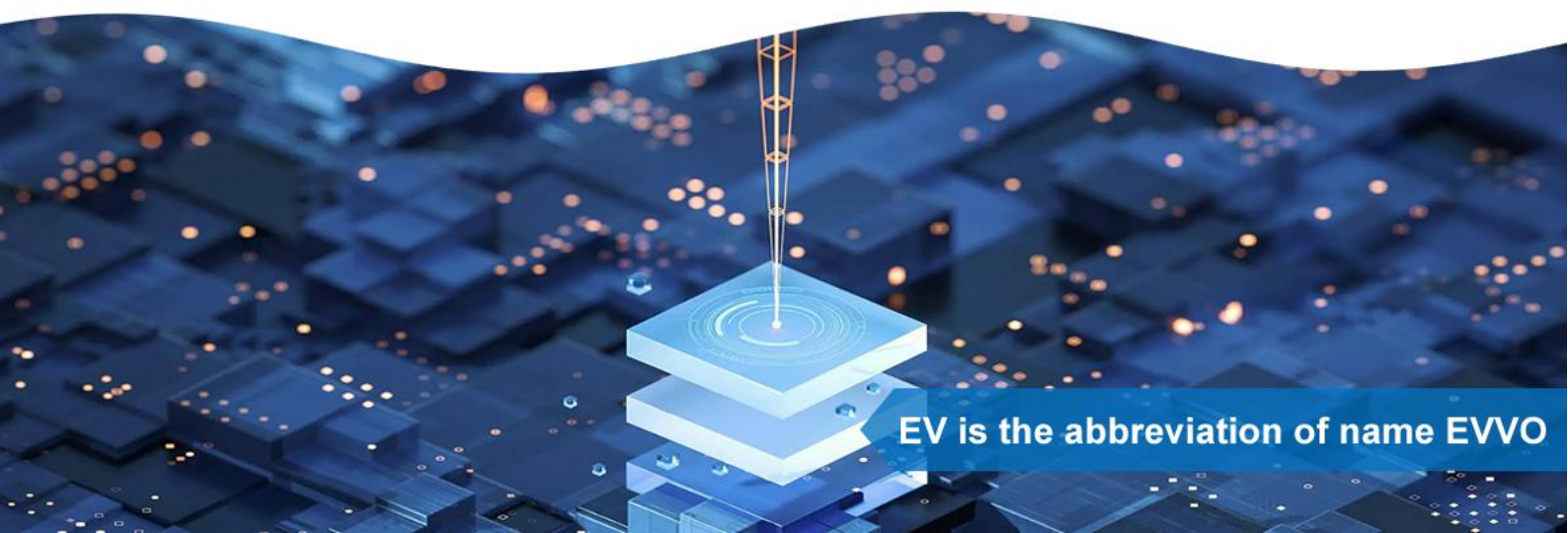
EVVOSEMI®
THINK CHANGE DO

ESD TVS MOS LDO Diode Sensor DC-DC

Product Specification

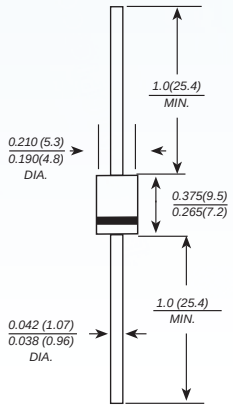
Domestic Part Number	1.5KE6.8 THRU 1.5KE440
Overseas Part Number	1.5KE6.8 THRU 1.5KE440
Equivalent Part Number	1.5KE6.8 THRU 1.5KE440



GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPESSOR

Breakdown Voltage:6.8-440 Volts Pesk Pulse Power:1500 Watts

DO-201AD



Dimensions in inches and (millimeters)

FEATURE

- 1500w peak pulse power capability
- Excellent clamping capability
- Low incremental surge resistance
- Fast response time:typically less than 1.0ps from 0v to V_{BR} for unidirectional and 5.0ns ror bidirectional types.
- High temperature soldering guaranteed: 265℃/10S/9.5mm lead length at 5 lbs tension

MECHANICAL DATA

Case: JEDEC DO-201AD molded plastic body over passivated junction
Terminals: Plated axial leads, solderable per MIL-STD 750 method 2026
Polarity: Color band denotes cathode except for bidirectional types
Mounting Position: Any
Weight: 0.04 ounce,1.10 grams

DEVICES FOR BIDIRECTIONAL APPLICATIONS

For bidirectional use C or CA suffix for types 1.5KE6.8 thru types 1.5KE440 (e.g. 1.5KE6.8CA,1.5KE440CA).
Electrical characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

	SYMBOLS	*VALUE*	*UNITS*
Peak power dissipation (Note 1)	P_{PPM}	Minimum 1500	Watts
Peak pulse reverse current (Note 1, Fig.1)	I_{PPM}	See Table 1	Amps
Steady state power dissapation (Note 2)	$P_{M(AV)}$	5.0	Watts
Peak forward surge current (Note 3)	I_{FSM}	200	Amps
Maximum instantaneous forward voltage at 100A for unidirectional only (Note 4)	V_F	3.5/5.0	Volts
Operating junction and storage temperature range	T_{STG},T_J	-55 to + 175	℃

Notes:

1.10/1000μs waveform non-repetitive current pulse,per Fig.3 and derated above Ta=25℃ per Fig.2
2.T_L=75℃,lead lengths 9.5mm,Mounted on copper pad atea of (20x20mm)Fig.5
3.Measured on 8.3ms single half sine-wave or equivalent square wave,duty cycle=4 pulses per minute maximum.
4.VF=3.5V max.for devices of $V_{(BR)}$≤200V,and VF=5.0V max.for devices of $V_{(BR)}$>200V

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ELECTRICAL CHARACTERISTICS (at T_A=25℃ unless otherwise noted)

Device Type	Breakdown Voltage $V_{(BR)}$ (Volts)(NOTES 1)		Test Current I_T(mA)	Stand-off Voltage V_{WM} (Volts)	Maximum Reverse Leakage atV_{WM} $I_{D(NOTE3)}$(μA)	Maximum Peak Pulse Reverse Current $I_{PPM(NOTE2)}$ (Amps)	Maximum Clamping Voltage at I_{PPM} Vc(Volts)	Maximum Temperature Coefficient of $V_{(BR)}$ (%/ °C)
	MIN	MAX						
1.5KE6.8	6.12	7.48	10.0	5.50	1000.0	139	10.8	0.057
1.5KE6.8A	6.45	7.14	10.0	5.80	1000.0	143	10.5	0.057
1.5KE7.5	6.75	8.25	10.0	6.05	500.0	128	11.7	0.061
1.5KE7.5A	7.13	7.88	10.0	6.40	500.0	133	11.3	0.061
1.5KE8.2	7.38	9.02	10.0	6.63	200.0	120	12.5	0.065
1.5KE8.2A	7.79	8.61	10.0	7.02	200.0	124	12.1	0.065
1.5KE9.1	8.19	10.0	1.0	7.37	50.0	109	13.8	0.068
1.5KE9.1A	8.65	9.55	1.0	7.78	50.0	112	13.4	0.068
1.5KE10	9.00	11.0	1.0	8.10	10.0	100	15.0	0.073
1.5KE10A	9.50	10.5	1.0	8.55	10.0	103	14.5	0.073
1.5KE11	9.90	12.1	1.0	8.92	5.0	92.6	16.2	0.075
1.5KE11A	10.5	11.6	1.0	9.40	5.0	96.2	15.6	0.075
1.5KE12	10.8	13.2	1.0	9.72	5.0	86.7	17.3	0.078
1.5KE12A	11.4	12.6	1.0	10.2	5.0	89.8	16.7	0.078
1.5KE13	11.7	14.3	1.0	10.5	5.0	78.9	19.0	0.081
1.5KE13A	12.4	13.7	1.0	11.1	5.0	82.4	18.2	0.081
1.5KE15	13.5	16.5	1.0	12.1	5.0	68.2	22.0	0.084
1.5KE15A	14.3	15.8	1.0	12.8	5.0	70.8	21.2	0.084
1.5KE16	14.4	17.6	1.0	12.9	5.0	63.8	23.5	0.086
1.5KE16A	15.2	16.8	1.0	13.6	5.0	66.7	22.5	0.086
1.5KE18	16.2	19.8	1.0	14.5	5.0	56.6	26.5	0.088
1.5KE18A	17.1	18.9	1.0	15.3	5.0	59.5	25.5	0.088
1.5KE20	18.0	22.0	1.0	16.2	5.0	51.5	29.1	0.090
1.5KE20A	19.0	21.0	1.0	17.1	5.0	54.2	27.7	0.090
1.5KE22	19.8	24.2	1.0	17.8	5.0	47.0	31.9	0.092
1.5KE22A	20.9	23.1	1.0	18.8	5.0	49.0	30.6	0.092
1.5KE24	21.6	26.4	1.0	19.4	5.0	43.2	34.7	0.094
1.5KE24A	22.8	25.2	1.0	20.5	5.0	45.2	33.2	0.094
1.5KE27	24.3	29.7	1.0	21.8	5.0	38.4	39.1	0.096
1.5KE27A	25.7	28.4	1.0	23.1	5.0	40.0	37.5	0.096
1.5KE30	27.0	33.0	1.0	24.3	5.0	34.5	43.5	0.097
1.5KE30A	28.5	31.5	1.0	25.6	50.	36.2	41.4	0.097
1.5KE33	29.7	36.3	1.0	26.8	5.0	31.4	47.7	0.098
1.5KE33A	31.4	34.7	1.0	28.2	5.0	32.8	45.7	0.098
1.5KE36	32.4	39.6	1.0	29.1	5.0	28.8	52.0	0.099
1.5KE36A	34.2	37.8	1.0	30.8	5.0	30.1	49.9	0.099
1.5KE39	35.1	42.9	1.0	31.6	5.0	26.6	56.4	0.100
1.5KE39A	37.1	41.0	1.0	33.3	5.0	27.8	53.9	0.100
1.5KE43	38.7	47.3	1.0	34.8	5.0	24.2	61.9	0.101
1.5KE43A	40.9	45.2	1.0	36.8	5.0	25.3	59.3	0.101
1.5KE47	42.3	51.7	1.0	38.1	5.0	22.1	67.8	0.101
1.5KE47A	44.7	49.4	1.0	40.2	5.0	23.1	64.8	0.101
1.5KE51	45.9	56.1	1.0	41.3	5.0	20.4	73.5	0.102
1.5KE51A	48.5	53.6	1.0	43.6	5.0	21.4	70.1	0.102
1.5KE56	50.4	61.6	1.0	45.4	5.0	18.6	80.5	0.103
1.5KE56A	53.2	58.8	1.0	47.8	5.0	19.5	77.0	0.103

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ELECTRICAL CHARACTERISTICS (at T_A=25℃ unless otherwise noted)

Device Type	Breakdown Voltage $V_{(BR)}$ (Volts)(NOTES 1)		Test Current I_T(mA)	Stand-off Voltage V_{WM} (Volts)	Maximum Reverse Leakage atV_{WM} $I_{D(NOTE3)}$(μA)	Maximum Peak Pulse Reverse Current $I_{PPM(NOTE2)}$ (Amps)	Maximum Clamping Voltage at I_{PPM} Vc(Volts)	Maximum Temperature Coefficient of $V_{(BR)}$ (%/ °C)
	MIN	MAX						
1.5KE62	55.8	66.8	1.0	50.2	5.0	16.9	89.0	0.104
1.5KE62A	58.9	65.1	1.0	53.0	5.0	17.6	85.0	0.104
1.5KE68	61.2	74.8	1.0	55.1	5.0	15.3	98.0	0.104
1.5KE68A	64.6	71.4	1.0	58.1	5.0	16.3	92.0	0.104
1.5KE75	67.5	82.5	1.0	60.7	5.0	13.9	108	0.105
1.5KE75A	71.3	78.8	1.0	64.1	5.0	14.6	103	0.105
1.5KE82	73.8	90.2	1.0	66.4	5.0	12.7	118	0.105
1.5KE82A	77.9	86.1	1.0	70.1	5.0	13.3	113	0.105
1.5KE91	81.9	100	1.0	73.7	5.0	11.5	131	0.106
1.5KE91A	86.5	95.5	1.0	77.8	5.0	12.0	125	0.106
1.5KE100	90.0	110	1.0	81.0	5.0	10.4	144	0.106
1.5KE100A	95.0	105	1.0	85.5	5.0	10.9	137	0.106
1.5KE110	99.0	121	1.0	89.2	5.0	9.5	158	0.107
1.5KE110A	105	116	1.0	94.0	5.0	9.9	152	0.107
1.5KE120	108	132	1.0	97.2	5.0	8.7	173	0.107
1.5KE120A	114	126	1.0	102	5.0	9.1	165	0.107
1.5KE130	117	143	1.0	105	5.0	8.0	187	0.107
1.5KE130A	124	137	1.0	111	5.0	8.4	179	0.107
1.5KE150	135	165	1.0	121	5.0	7.0	215	0.108
1.5KE150A	143	158	1.0	128	5.0	7.2	207	0.108
1.5KE160	144	176	1.0	130	5.0	6.5	230	0.108
1.5KE160A	152	168	1.0	136	5.0	6.8	219	0.108
1.5KE170	153	187	1.0	138	5.0	6.1	244	0.108
1.5KE170A	162	179	1.0	145	5.0	6.4	234	0.108
1.5KE180	162	198	1.0	146	5.0	5.8	258	0.108
1.5KE180A	171	189	1.0	154	5.0	6.1	246	0.108
1.5KE200	180	220	1.0	162	5.0	5.2	287	0.108
1.5KE200A	190	210	1.0	171	5.0	5.5	274	0.108
1.5KE220	198	242	1.0	175	5.0	4.4	344	0.108
1.5KE220A	209	231	1.0	185	5.0	4.6	328	0.108
1.5KE250	225	275	1.0	202	5.0	4.2	360	0.110
1.5KE250A	237	263	1.0	214	5.0	4.4	344	0.110
1.5KE300	270	330	1.0	243	5.0	3.5	430	0.110
1.5KE300A	285	315	1.0	256	5.0	3.6	414	0.110
1.5KE350	315	385	1.0	284	5.0	3.0	504	0.110
1.5KE350A	332	368	1.0	300	5.0	3.1	482	0.110
1.5KE400	360	440	1.0	324	5.0	2.6	574	0.110
1.5KE400A	380	420	1.0	342	5.0	2.7	548	0.110
1.5KE440	396	484	1.0	356	5.0	2.4	631	0.110
1.5KE440A	418	462	1.0	376	5.0	2.5	602	0.110

NOTES:

1.$V_{(BR)}$measured after I_T applied for 300μs,I_T=square wave pulse or equivalent
2.Surge current waveform per Fig.3 and derated per Fig.2
3.For bidirectional types having V_{WM} of 10 volts and less,the I_D limit is doubled
4.All items and symbols are consistent with ANSI/IEEE C62.35

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FIG. 1-PEAK PULSE POWER RATING CURVE

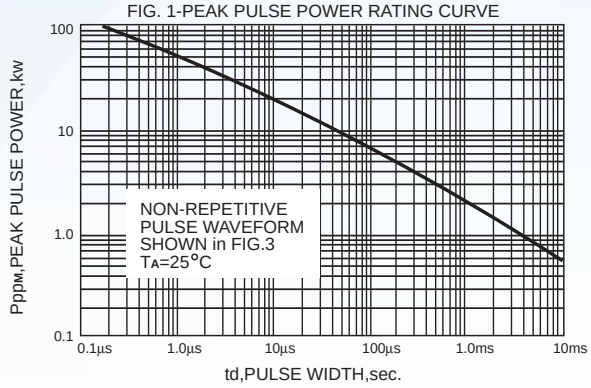


FIG. 2-PULSE DERATING CURVE

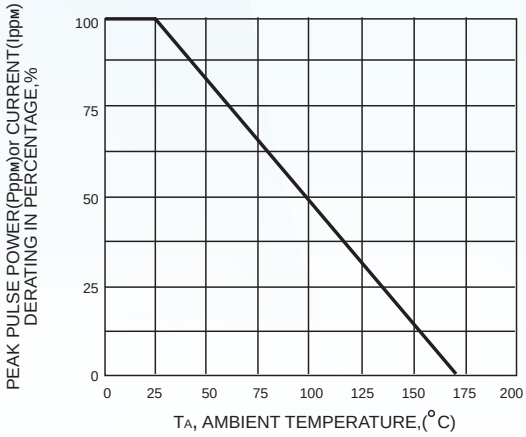


FIG.3-PULSE WAVEFORM

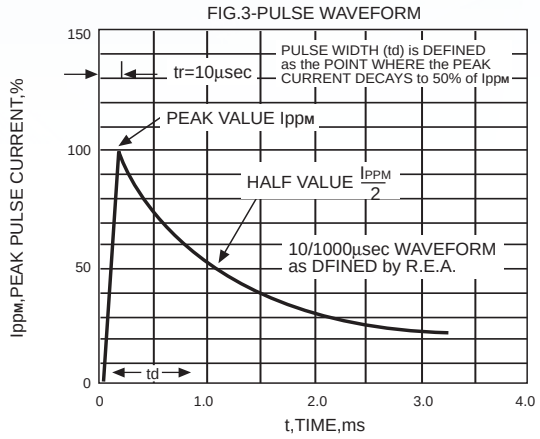


FIG. 4-TYPICAL JUNCTIONAL CAPACITANCE
UNIDIRECTIONAL

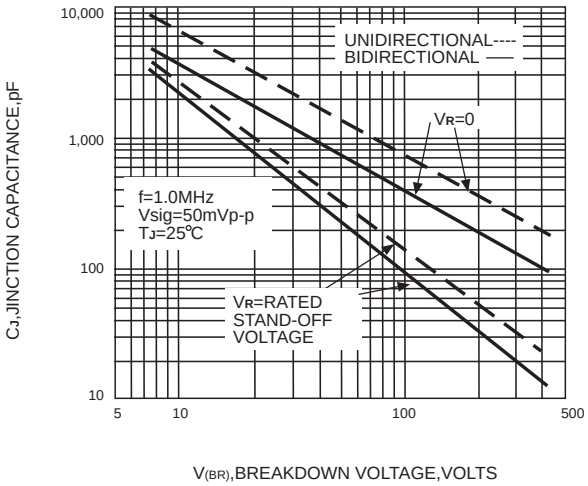


FIG.5-STEADY STATE POWER DERATING CURVE

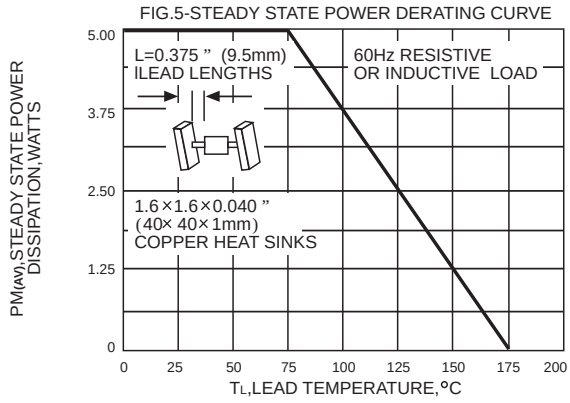


FIG.6-MAXIMUM NON-REPETITIVE FORWARD SURGE
CURRENT UNIDIRECTIONAL ONLY

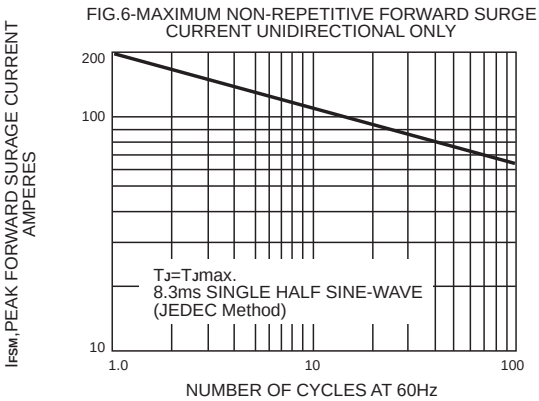
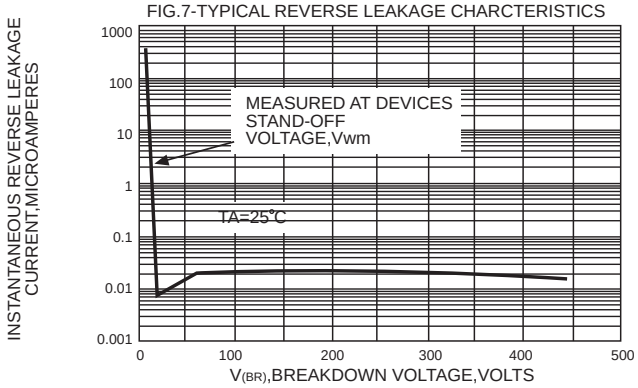


FIG.7-TYPICAL REVERSE LEAKAGE CHARCTERISTICS



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